AMENDMENTS TO THE CLAIMS

1. (Previously presented) A method of forming a micro-lens, the method comprising:

forming a first layer on a substrate, the first layer comprised of a first material and the substrate comprised of a second material;

forming a first opening in the first layer using a dry etchant;

providing a wet etchant in the first opening to etch both the substrate and the first layer to form a first mold for the micro-lens, the wet etchant etching the first layer at a different rate than the substrate; and

adding a lens material in the first mold to form the micro-lens.

2. (Canceled)

3. (Original) The method of claim 1, wherein forming the first opening in the first layer comprises:

depositing a resist material on the first layer;

patterning openings in the resist material to the first layer;

etching the first layer to extend the openings to the substrate; and

removing the resist material.

4. (Previously presented) The method of claim 3, wherein the first layer is etched to extend the openings to the substrate.

5. (Original) The method of claim 1, wherein the first layer is a layer of Low Silane and the substrate is TEOS.

6. (Previously presented) A method of forming a micro-lens, the method comprising:

forming a first layer of Silane PECVD on a substrate of TEOS PECVD densified;

forming a first opening in the first layer using a dry etchant;

providing a wet etchant in the first opening to etch both the substrate and the first layer to form a first mold for the micro-lens, the wet etchant etching the first layer at a different rate than the substrate, wherein the wet etchant is about ten percent hydrogen fluoride by volume in distilled water; and

adding a lens material in the first mold to form the micro-lens.

7. (Previously presented) The method of claim 1, wherein the first layer is a layer of Low Silane PECVD, the substrate is high density plasma CVD Oxide as deposited, and the wet etchant is about one percent by volume hydrogen fluoride in distilled water.

8. (Previously presented) The method of claim 1, wherein the first layer is a layer of Low Silane PECVD, the substrate is HDP CVD Oxide densified and the wet etchant is about one percent by volume hydrogen fluoride in distilled water.

9. (Previously presented) The method of claim 1, wherein the first layer is a layer of Low Silane PECVD, the substrate is fuse annealed dielectric antireflective coating, and the wet etchant is about one percent by volume hydrogen fluoride in distilled water.

10. (Previously presented) The method of claim 1, wherein the first layer is a layer of fuse annealed dielectric antireflective coating, the substrate is HDP CVD Oxide densified, and the wet etchant is about a buffered solution of about five percent hydrogen fluoride by volume in distilled water.

11. (Previously presented) The method of claim 1, wherein the first layer is a layer of borophosphosilicate glass (3.8/6.9) WJ RTP and anneal, the substrate is borophosphosilicate glass (3.0/7.6) Centura densified, and the wet etchant is about four percent by volume hydrogen fluoride in distilled water.

12. (Previously presented) The method of claim 1, wherein the first layer is a layer of phosphosilicate glass (6.9) as deposited, the substrate is HDP CVD Oxide as deposited, and the wet etchant is a buffered solution of about five percent hydrogen fluoride by volume in distilled water.

13. (Previously presented) The method of claim 1, wherein the first layer is a layer of fuse annealed DARC, the substrate is HDP CVD Oxide densified, and the wet etchant is a buffered solution of about five percent hydrogen fluoride by volume in distilled water.

14. (Previously presented) The method of claim 1, wherein the first layer is a layer of BPSG (3.8/6.9) WJ RTP and anneal, the substrate is Low Silane PECVD, and the wet etchant is about ten percent by volume hydrogen fluoride in distilled water.

15. (Previously presented) The method of claim 1, wherein the first layer is a layer of Low Silane PECVD, the substrate is TEOS

PECVD, and the wet etchant is about four percent by volume hydrogen fluoride in distilled water.

16. (Previously presented) The method of claim 1, wherein the first layer is a layer of TEOS PECVD, the substrate 10 is a fuse annealed dielectric antireflective coating, and the wet etchant is a solution of hydrogen fluoride in distilled water.

17. (Previously presented) The method of claim 1, wherein the first layer is a layer of TEOS PECVD, the substrate 10 is HDP CVD Oxide as deposited, and the wet etchant is a solution of hydrogen fluoride in distilled water.

18. (Previously presented) The method of claim 1, wherein the first layer is a layer of TEOS PECVD, the substrate 10 is HDP CVD Oxide densified, and the wet etchant is a solution of hydrogen fluoride in distilled water.

19. (Previously presented) The method of claim 1, wherein the first layer is a layer of TEOS PECVD, the substrate is borophosphosilicate glass (3.8/6.9) WJ RTP and anneal, and the wet etchant is a buffered solution of about five percent hydrogen fluoride by volume in distilled water.

20. (Previously presented) The method of claim 1, wherein the first layer is a layer of Low Silane PECVD, the substrate is TEOS PECVD, and the wet etchant is about one percent by volume hydrogen fluoride in distilled water.

21. (Previously presented) The method of claim 1, wherein the first layer is a layer of fuse annealed dielectric antireflective coating, the substrate is Low Silane PECVD, and the wet etchant is a buffered

solution of about five percent hydrogen fluoride by volume in distilled water.

22. (Previously presented) The method of claim 1, wherein the first layer is a layer of HDP CVD Oxide as deposited, the substrate is TEOS PECVD densified, and the wet etchant is about ten percent by volume hydrogen fluoride in distilled water.

23. (Previously presented) The method of claim 1, wherein the first layer is a layer of borophosphosilicate glass (3.8/6.9) WJ RTP and anneal, the substrate is HDP CVD Oxide as deposited, and the wet etchant is about four percent by volume hydrogen fluoride in distilled water.

24. (Previously presented) The method of claim 1, wherein the first layer is a layer of fuse annealed dielectric antireflective coating, the substrate is borophosphosilicate glass (3.0/6.0) WJ as deposited, and the wet etchant is a buffered solution of about five percent hydrogen fluoride by volume in distilled water.

25. (Previously presented) The method of claim 1, wherein the first layer is a layer of phosphosilicate glass (6.9) as deposited, the substrate is borophosphosilicate glass (3.8/6.9) WJ RTP and anneal, and the wet etchant is a buffered solution of about five percent hydrogen fluoride by volume in distilled water.

26. (Previously presented) The method of claim 1, wherein the first layer is a layer of borophosphosilicate glass (3.8/6.9) WJ RTP and anneal, the substrate is HDP CVD Oxide as deposited, and the wet etchant is about ten percent by volume hydrogen fluoride in distilled water.

27. (Original) The method of claim 1, wherein the first material is a material selected from the group consisting of: glass, oxide, silicon nitride, and a dielectric anti-reflective coating.

28. (Original) The method of claim 1, wherein the second material is a material selected from the group consisting of: glass, oxide, silicon nitride, and a dielectric anti-reflective coating.

29. (Previously presented) The method of claim 1, wherein the wet etchant etches the first layer at a greater rate than the substrate.

30. (Original) The method of claim 1, wherein the etch rate ratio of the first layer to the substrate is about 1.5:1.

31. (Original) The method of claim 1, wherein the etch rate ratio of the first layer to the substrate is about 2:1.

32. (Original) The method of claim 1, wherein the etch rate ratio of the first layer to the substrate is about 3:1.

33. (Original) The method of claim 1, wherein the etch rate ratio of the first layer to the substrate is about 5:1.

34. (Original) The method of claim 1, wherein adding the lens material comprises adding an inorganic material.

35. (Original) The method of claim 1, wherein adding the lens material comprises adding a material having a higher refraction index than the refraction index of the substrate.

36. (Previously presented) The method of claim 1, further comprising:

forming at least a second layer on the first layer, the second layer comprising a third material, wherein the wet etchant etches the second layer at a different rate than the first layer.

37. (Previously presented) A method of forming a micro-lens, the method comprising:

forming a first layer on a substrate, the first layer comprised of a first material and the substrate comprised of a second material;

forming at least a second layer on the first layer, the second layer comprising a third material;

forming a first opening in the first layer using a first etchant;

providing a second etchant in the first opening to etch the substrate, the first layer, and the second layer to form a first mold for the micro-lens, wherein the second etchant etches the first layer at a greater rate than the substrate, and wherein the second etchant etches the second layer at a greater rate than the first layer; and

adding a lens material in the first mold to form the micro-lens.

38. (Previously presented) A method of forming a micro-lens, comprising:

forming a first layer on a substrate, the first layer comprised of a first material and the substrate comprised of a second material;

forming at least one second layer on the first layer, the at least one second layer comprised of a third material;

forming an opening in the first and at least one second layers using a first etchant;

providing a second etchant in the opening to etch the substrate, the first layer, and the at least one second layer to form a mold for a micro-lens; and

adding a lens material in the mold to form a micro-lens.

39. (Previously presented) The method of claim 38, wherein providing the second etchant comprises providing a wet etchant and using the first etchant comprises providing a dry etchant.

40. (Original) The method of claim 38, wherein forming the opening in the first and at least one second layers comprises:

depositing a resist material on the second material;

patterning opening in the resist material;

dry etching the first and at least one second layers to extend the opening to the substrate; and

removing the resist material.

41. (Previously Presented) The method of claim 38, wherein the first layer is a layer of Silane PECVD, the at least one second layer is a layer of borophosphosilicate glass (3.8/6.9) WJ RTP and anneal, the substrate is TEOS PECVD densified, and the etchant is about ten percent hydrogen fluoride by volume in distilled water.

42. (Original) The method of claim 38, wherein the first layer is a layer of Low Silane PECVD, the at least one second layer is a layer of

borophosphosilicate glass (3.0/6.0) WJ RTP and anneal, the substrate is TEOS PECVD densified, and the etchant is about ten percent hydrogen fluoride by volume in distilled water.

43. (Original) The method of claim 38, wherein the first layer is a layer of Low Silane PECVD, the at least one second layer is a layer of borophosphosilicate glass (2.7/7.2) WJ RTP and anneal, wherein the substrate is TEOS PECVD, and the etchant is about four percent by volume hydrogen fluoride in distilled water.

44. (Original) The method of claim 38, wherein the first layer is a layer of Low Silane PECVD, the at least one second layer is a layer of borophosphosilicate glass (2.7/7.2) WJ RTP and anneal, the substrate is TEOS PECVD, and the etchant is about one percent by volume hydrogen fluoride in distilled water.

45. (Original) The method of claim 38, wherein the first layer is a layer of Low Silane PECVD, the at least one second layer is a layer of borophosphosilicate glass (3.0/6.0) WJ RTP and anneal, the substrate is TEOS PECVD, and the etchant is about one percent by volume hydrogen fluoride in distilled water.

46. (Original) The method of claim 38, wherein the first material is a material selected from the group consisting of glass, oxide, silicon nitride, and a dielectric anti-reflective coating.

47. (Original) The method of claim 38, wherein the second material is a material selected from the group consisting of glass, oxide, silicon nitride, and a dielectric anti-reflective coating.

48. (Original) The method of claim 38, wherein the third material is a material selected from the group consisting of glass, oxide, silicon nitride, and a dielectric anti-reflective coating.

49. (Previously presented) The method of claim 38, wherein the second etchant etches at a greater rate in a horizontal direction than in a vertical direction.

50. (Previously presented) The method of claim 38, wherein the second etchant etches the at least one second layer at a greater rate than the first layer, and wherein the second etchant etches the first layer at a greater rate than the substrate.

51. (Original) The method of claim 38, wherein a first etch rate ratio of the first layer to the substrate is different than a second etch rate ratio of the at least one second layer to the first layer.

52. (Original) The method of claim 51, wherein the first etch rate ratio is greater than the second etch rate ratio.

53. (Original) The method of claim 38, wherein adding the lens material comprises adding an inorganic material.

54. (Original) The method of claim 38, wherein adding the lens material comprises adding a material having a higher refraction index than the refraction index of the substrate.

55-60. (Canceled)

61. (Previously Presented) A method of forming a micro-lens, the method comprising:

forming a first layer on a substrate, the first layer comprised of a first material and the substrate comprised of a second material;

forming a first opening in the first layer using a first etchant, the first opening having sidewalls substantially perpendicular to the surface of the first layer;

providing a second etchant in the first opening to etch both the substrate and the first layer to form a first mold for the micro-lens, the second etchant etches the first layer at a different rate than the substrate; and

adding a lens material in the first mold to form the micro-lens.

62. (Previously Presented) The method of claim 61, wherein the second etchant is a wet etchant and the first etchant is a dry etchant.

63. (Previously Presented) The method of claim 61, wherein forming the first opening in the first layer comprises:

depositing a resist material on the first layer;

patterning openings in the resist material to the first layer;

etching the first layer to extend the openings to the substrate; and

removing the resist material.

64. (Previously Presented) The method of claim 63, wherein etching the first layer to extend the openings to the substrate comprises conducting a dry etch.

65. (Previously Presented) The method of claim 61, wherein the second etchant etches the first layer at a greater rate than the substrate.

66. (Previously Presented) The method of claim 61, further comprising:

forming at least a second layer on the first layer, the second layer comprising a third material, wherein the second etchant etches the second layer at a different rate than the first layer, and

forming the first opening in the first layer and the second layer,

wherein the first mold comprises both the first layer and the substrate.

67. (Canceled)